



Pressure Transmitter

HDA 7400 for series application

Customised version thanks to various electrical and mechanical connections and a large number of output signals

Relative pressure

Accuracy 0.5 %



Features

- Accuracy $\leq \pm 0.5 \%$ FS typ.
- Extremely small and compact design
- Exceptional temperature and EMC properties

Description

The pressure transmitter series HDA 7400 for the measurement of relative pressures in the high-pressure range has a stainless steel sensor cell with a thin-film strain gauge, which forms the basis for a robust and long-life pressure transmitter.

The device series combines excellent technical data with a very small and compact design

Various pressure ranges between 0 .. 40 bar and 0 .. 1000 bar can be supplied to suit the particular application.

For integration into modern controls (e.g. PLC) standard analogue output signals are available.

Fields of application

The HDA 7400 pressure transmitter series has been specially designed for series use, e.g. in mobile applications.

Thanks to its extremely small and compact design, the sensor is particularly suited for extremely narrow spaces.

Technical data

Input data									
Measurement ranges	bar	40	60	100	160	250	400	600	1000
Overload pressures	bar	80	120	200	320	500	800	1000	1600
Burst pressure	bar	200	300	500	800	1250	2000	2000	3000
Mechanical connection	G1/4 A ISO 1179-2								
Tightening torque, recommended	20 Nm								
Parts in contact with fluid	Connector: Stainless steel Seal: FKM								
Output data									
Output signal ¹⁾	e.g. 4 .. 20 mA; 0 .. 5 V, 0.5 .. 4.5 V; 1 .. 6 V; 0 .. 10 V and more								
Accuracy acc. to DIN 16086, Terminal based ²⁾	≤ ± 0.5 % FS typ. ≤ ± 1.0 % FS max.								
Accuracy at minimum value setting (B.F.S.L.)	≤ ± 0.25 % FS typ. ≤ ± 0.5 % FS max.								
Temperature compensation zero point	≤ ± 0.015 % FS / °C typ. ≤ ± 0.025 % FS / °C max.								
Temperature compensation span	≤ ± 0.015 % FS / °C typ. ≤ ± 0.025 % FS / °C max.								
Rise time	≤ 2 ms								
Long-term drift	≤ ± 0.3 % FS typ. / year								
Environmental conditions / Approvals / Tests									
Compensated temperature range ¹⁾	-25 .. +85 °C								
Operating temperature range ³⁾	-40 .. +85 °C / -25 .. +85 °C								
Storage temperature range	-40 .. +100 °C								
Fluid temperature range ³⁾	-40 .. +100 °C / -25 .. +100 °C								
EMC	2014/30/EU EN 61006-6-1 / 2 / 3 / 4								
Vibration resistance	DIN EN 60068-2-6					≤ 200 m/s² (10 .. 500 Hz)			
Shock resistance	DIN EN 60068-2-27					≤ 100 g / 6 ms			
Protection type	DIN EN ISO 60529					IP 65 / IP 67 (depending on the electrical connection)			
  conformity	Provided								
 approval ⁴⁾	Provided								
Other data									
Electrical connection ¹⁾	e.g. M12x1 (4 pole); Jacketed cable								
Supply voltage	8 .. 30 V DC 2-conductor 12 .. 30 V DC 3-conductor								
when applied acc. to UL specifications	-limited energy- acc. to 9.3 UL 61010; Class 2 UL 1310/1585; LPS UL 60950								
Residual ripple of supply voltage	≤ 5 %								
Current consumption	≤ 25 mA								
Life expectancy ⁵⁾	> 10 million load cycles (0 .. 100 % FS)								
Weight	~ 60 g								

Note: Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection are provided.

FS (Full Scale) = relative to complete measuring range

B.F.S.L. = Best Fit Straight Line

¹⁾ Others on request

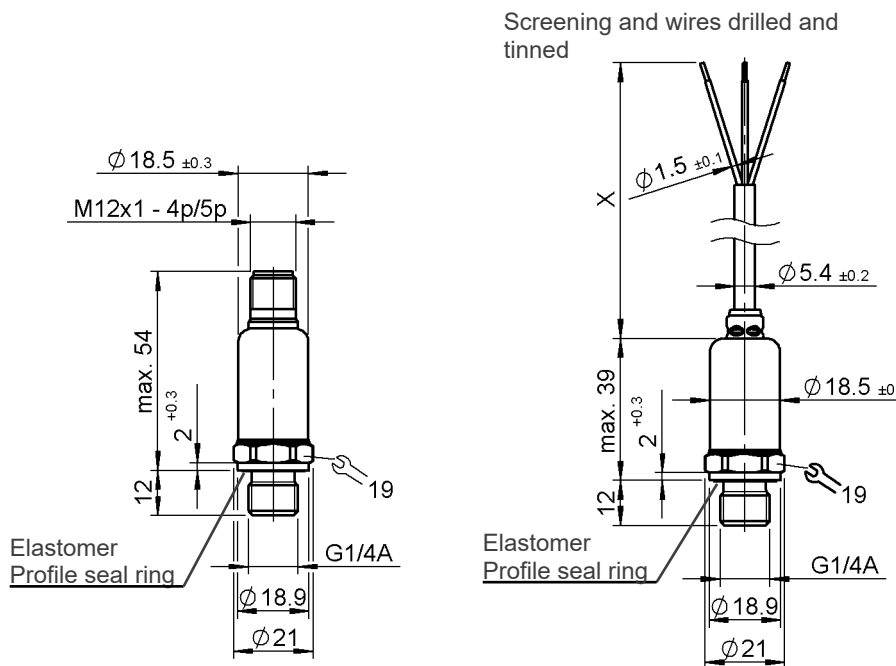
²⁾ Including non-linearity, hysteresis, offset and final value deviation

³⁾ In the standard up to -25 °C with FKM seal, -40 °C on request

⁴⁾ Environmental conditions acc. to 1.4.2 UL 61010-1; C22.2 no. 61010-1

⁵⁾ Measuring ranges ≥ 1000 bar: > 1 million load cycles (0 .. 100 % FS)

Dimensions (Examples)



Order details OEM

Pressure transmitter HDA 7400 has been specially developed for OEM customers and is available for minimum order quantities from 100 pieces per type.

For detailed specification, please do not hesitate to contact our HYDAC ELECTRONIC Sales department.

Note

The information in this brochure relates to the operating conditions and applications described.

For applications and/or operating conditions not described please contact the relevant technical department.

Subject to technical modifications.

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